Employability Skills Development Approaches: An Application of Importance-Performance Analysis and Analytic Network Process

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Employability Skills Development Approaches: An Application of the Analytic Network Process in Malaysia

ABSTRACT

In the challenging economic world, employers are looking for employees who are able drive organizations to compete successfully in the market. Graduates should equip themselves with the relevant employability skills as needed by the employers. Therefore, higher education institutions must evaluate the effectiveness of employability skills development approaches on graduates' employability skills. The main objectives of this study are to determine importance weights of Malaysian graduates' employability skills and to identify the most effective employability skills development approaches. In general, the result of the analytical network process (ANP) shows that the employers placed "ability to speak fluently in English" has highest important weight, followed by "ability to write effectively in English" and. "ability to think critically". Meanwhile, the results of limit supermatrix show that the most effective employability skills development approach is "work integrated learning", with a percentage priority of 19.7. The next more effective approach is 'stand-alone subject model" with 18.5 percent and then followed by academic support programme, embedded subject model, non-academic support programme and campus life activities.

Key Words: *Employability skills, Importance-Performance Analysis (IPA), Analytic Network Process (ANP)*

1.0 Introduction

Every year, the number of graduates entering the labour market grows. A question arises as to the graduates possessing the relevant employability skills needed by the employers, subject to much debate. Some critics contend that higher education institutions are falling behind the times in meeting the relevant job requirements of organizations (Parry *et al.,* 1996). According to Salina *et al.* (2011), employers are complaining that the graduates are unable to fulfil employers' needs in the uncertain market environment. This is supported by Harvey *et al.* (1997), who found a skills gap between employer requirements and the output from the education system. Sahney *et al.* (2004) revealed that higher education institutions often fall behind in meeting employer requirements because changes in industry move faster than the evolution of programmes offered by education institutions. Higher education simply does not always keep pace. Industry is becoming more flexible, technology is changing, and there are demands for new skills and expertise. Also, Willis and Taylor (1999) stated that universities have been criticized as providing inadequate education. Shukran *et al.* (2006) supported this finding, revealing that fresh graduates are not equipped with up-to-date knowledge and technology. As a result, this deficiency has affected graduates' competencies, their ability to join the workforce, and also contributes to unemployment among graduates. According to statistics from the Ministry of Higher Education, the number of jobless graduates rose from 65,500 in 2010 to 71,600 in the first quarter of 2011.

These facts should be taken into consideration by higher education institutions (HEIs). Efforts should be taken to produce employable graduates who are equipped with the relevant skills and knowledge to meet the demands of the employment market in not only Malaysia, but the global market as well. This study first aims to determine the important weight of employability skills. In addition, it aims to identify the most effective employability skills development approaches among graduates.

2.0 Employability Skills

Terminology referring to employability skills is plentiful. The meaning of employability depends on the individual and the context (Clarke, 2008). According to Yorke (2000), the term employability has been described in many ways, such as generic, transferable, intellectual, cognitive and interpersonal skills. Broadly defined, employability refers to an individual's capability to obtain a job, retain suitable employment, and move within the labour market to realize their potential through sustainable employment (Hillage & Pollard, 1998; Mcleish, 2002; Brown *et al.*, 2003). Clarke (2008, p.262) defines it as "the minimum generic skills or competencies needed by school leavers and graduates to enter the labour market." At an individual level, Clarke (2008, p. 262) defines employability as "the skills, abilities, attitudes, and behaviours, as a current state, a process of a future outcome, an individual characteristic made up of the sum of an individual's job related skills, or as a reflection of the individual's position within the labour market." Nilsson (2010) remarks that for graduates, employability is associated with the ability to find a job and to be employed. According to Hillage and Pollard (1998), there are three elements of employability, namely the ability to find a job, the ability to remain in the job and move between jobs within the same organization, and the ability to find a new job. Moreau and Leathwood (2006) refer to employability to skills as understandings and personal attributes that make graduates preferred and successful in their careers, and an ability to benefit the workforce, community and economy in which they serve. Employability has different meanings depending on the contexts of the jobs researchers refer to. However, there are several general similarities and common criteria. Based on the literature review, the definition of employability can be summarized as "an individual's ability to find a job that is appropriate with his/her qualifications, remain attractive in the labour market, and the ability to make a transition between his job/role within the same organization or his ability to find a new job within the independent labour market."

The literature suggests two types of employability skills: subject-specific skills and non-subject specific skills (Yorke, 2000). A subject specific skill refers to specific skills or knowledge required to perform a specific job (i.e. doctor, lawyer, accountant etc.), while non-subject specific skills are non-technical skills and knowledge. Cox and King (2006) describe the concept of employability in two aspects, namely subject skills and transferable skills. Transferable skills refer to knowledge, skills, abilities and personal characteristics which can be transferred or used within any profession and at any stage of a career, while subject skills are relevant only to a single profession. Dench (1997) extends the concept of employability skills to include personal attributes, namely honesty, reliability and integrity. According to Clarke (2008), organizations that are able to hire employees with highly developed soft skills are able to compete more successfully than employers who focus on the retention of employees with subject specific skills. Hii (2007) states that a study of Fortune 500 chief executive officers (CEO) found that 75% of long-term business success depends on soft skills, and only 25% depends on technical skills. Therefore, the development and assessment of the soft skills of graduates is essential to ensure a successful transition from university to the employment market. According to Nilson (2010, p. 548), the key components of employability include "formal competence, social contacts and networks, literacy, and oral and written communication skills."

3.0 Analytic Network Process

The analytic network process (ANP) generalizes the analytic network process (AHP) by incorporating feedback and interdependent relationships among decision elements and alternatives. This provides a more comprehensive approach when modeling complex decision problems. Both the AHP and the ANP derive the relative priority weight of absolute numbers from individual judgments by making paired comparisons of elements on a common property or a control criterion. In the AHP, these judgments represent independent assumptions of higher-level cluster from the lower level in a multi-level hierarchical structure, while the ANP uses a network without the need to specify levels (Saaty, 2003). In other words, the ANP enables interrelationship not only between clusters (outer dependence) but also among elements (inner dependence) within a cluster as shown in Figure 1.

In the ANP, there is an associated network of influences among the elements and clusters. The ANP allows both interaction and feedback within clusters of elements (inner dependence) and between clusters (outer dependence), with respect to an underlying control criterion (Saaty, 2003). Inner and outer dependencies can capture and represent the concepts of influencing or being influenced relationships, within and between clusters of elements. Then pairwise comparisons are made systematically including all the combinations of element/cluster relationships. Pairwise comparisons of the elements in each cluster are conducted with respect to their relative importance to their control criterion. The control criterion for these pairwise comparisons can be the criteria at the upper or lower levels. In the case of interdependencies, components within the same level can be viewed as controlling components for each other, or levels may be interdependent on each other. The ANP uses the same fundamental comparison scale (1-9) as the AHP. This fundamental scale enables the decision-maker to incorporate subjectivity, experience and knowledge intuitively and indicate how many times an element dominates another with respect to the control criterion (Bayazit, 2006). The decision-maker can express his/ her preference between each pair of elements by verbal judgments such as equally important, moderately important, strongly important, very strongly important and extremely important or by stating a single number taken from the fundamental comparison scale.

Table 1 shows the fundamental comparison scale used by the ANP. The ANP is able to handle interdependencies among elements through the calculation of composite weights as developed in a supermatrix. After completing all the pairwise comparisons, the derived priorities of the unweighted supermatrix are obtained for each control criterion. Then, using the cluster weights matrix, these priorities of all factors in each cluster are weighted and then the results are synthesized through addition for the entire control criterion. The supermatrix and its powers are the fundamental tools needed to lay out the working of the ANP (Saaty, 2003).

Table1: The fundamental comparison scale in the ANP

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective.
3	Moderate importance	Experience and judgment slightly favour one activity over the other.
5	Strong importance	Experience and judgment strongly favour one activity over the other.

7	Very strong importance	An activity is favoured very strongly over the other; its dominance is demonstrated in practice.
9	Extreme importance	The evidence favouring one activity over the other is of the highest possible order of affirmation.
2, 4,6 and 8	For compromise between the above values	Compromise judgment between the above values because there is no good word to describe them.

There are four steps in ANP, namely:

Step1: Setting up the ANP model and perform pairwise comparison of the elements in the cluster.

Step 2: Construct unweighted super matrix

Step 3: Make pairwise comparisons between clusters/elements

Step 4: Calculate the weighted super matrix

Step 5: Calculate limit matrix by raising the weighted super matrix to the power 2k+1

4.0 Research methodology

Generating a list of attributes is an important part of the Analytical Network Process (ANP) procedure. For the purpose of this study, a list of graduate employability skills was developed by reviewing study by previous researchers. This procedure generates a list of 49 graduate employability skill attributes. This attribute focus on computational skills, management skills, critical thinking skills, enterprise and entrepreneurial skills, interpersonal skills, communication skills and thinking skills. To determine the importance and satisfaction of the graduates' employability skills perceived by employers, a set of questionnaires were sent to the companies, government agencies and semi-government agencies. Of 942 questionnaires mailed, 233 questionnaires were found usable for further analysis, for a 25% response rate.

The mean importance and satisfaction of the graduates' employability skills perceived by employers were plotted in the importance-performance analysis (IPA) map. Based on the IPA map, 13 graduates' employability skills fell in the area to improve quadrant, which means that these attributes are perceived important by the employers, but satisfaction levels are low, consequently, more attention needs to be paid on these skills. The lists of the attributes are:

A. ability to express own ideas clearly, effectively and with confidence;
B. ability to generate creative ideas;
C. ability to think critically;
D. ability to make logical conclusion by analyzing relevant data;
E. ability to explain, analyze and evaluate data/information;
F. ability to search and manage the relevant information from various resources;
G. ability to manage others;
H. ability to encourage and motivate others;
I. ability to do presentations of a project effectively;
J. ability to recognize and analyze problems;
K. ability to speak fluently in English;
L. ability to think out of the box, and
M. ability to write effectively in English.

Then, employability skills' development approaches were identified. The employability skills development approaches are the methods that the lecturers and students can apply in their teaching and learning process. Table 2 shows the employability skills development approaches and used in the ANP approach.

Table 2: Employability skills development approaches

	Attributes	Definitions
(1)	Academic support programmes	Involve programmes and activities that are created, developed and used to support soft skills either directly or indirectly that associated with academic matters (e.g. learning skills programme, English language support programme etc).
(2)	Campus life activities	Students' life in university residences and campus surrounding (e.g. programmes and activities on soft skills development).
(3)	Embedded subject model	Embedding the soft skills in the teaching and learning activities across the curriculum (e.g. integrated into core subject such as mathematics, statistics, economics, etc).
(4)	Non-academic support programmes	Involve programmes and activities that are created, developed and used to support soft skills either directly or indirectly which not related to academic matters but more of personality and professional development of the students (e.g. PALAPES, SUKSIS etc).
(5)	Stand-alone subject model	Develop soft skills through specific courses that are carefully planned for this purpose (e.g. English language, entrepreneurship, Islamic and Asian Civilisation (TITAS), etc)
(6)	Work-integrated learning	Form of learning whereby periods of study are alternated with periods of related work in business, industry or government agency. In this way students are given the opportunity to effectively integrate the theory of the classroom with the practice and the responsibility of the workplace (e.g. industrial/ practical training).

5.0 An actual case example

The example presents the actual case of implementation of ANP in prioritizing graduates' employability skills and in determining the most effective employability skills development approaches in Malaysia higher education institutions (HEIs). The steps conducted in the ANP also presented.

Step 1: Construction of the model

The first step in ANP is to develop a model to be examined. In this paper, the ANP model consists of three clusters (objective cluster, employability skills cluster and employability skills development approaches cluster) that connected by arrow and loop to one another.

The arrow and loop represents the interdependency between cluster and element in the cluster. Figure 1 shows the ANP model in this research. Refer to Figure 1, the purpose of this model is to identify the most effective employability skills development approaches in order to equip graduates with suitable employability skills. In this model, the loop shows the interdependency among element in the employability skills development approaches cluster. In other word, there are inter-correlation among element in the cluster. Meanwhile, the arrow shows the relationship between elements in the cluster of employability skills with the elements in the cluster of employability skills development approaches.

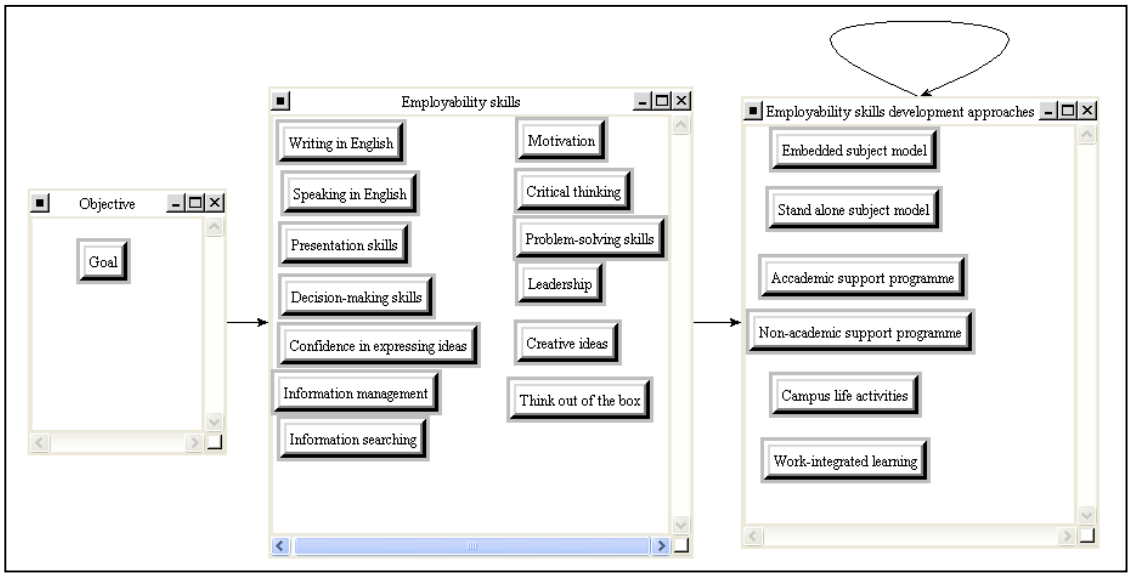

Figure 1: ANP model

Step 2: pairwise comparison matrices between elements

The next step is to make comparison between clusters and elements. The elements in each cluster that belong to control criteria are compared. The elements were compared using pairwise comparison and presented in form of matrix. First, to calculate the importance weight of the employability skills, employers were asked to make pairwise comparison between elements in the cluster. An example of the question that asked to the employers is: which skill is more important your company “ability to write in English” or “ability to speak in English”, and how much important it is? Then, the same types of question were repeated for all the remaining skills.

Second, to calculate the weight of the relationship matrix between employability skills and employability skills development approaches, fifty lecturers were contacted to make comparisons between each pair of employability skills’ development approaches on every employability skills. Examples of the questions posed are: which method, “embedded subject model” or “stand alone subject model,” is more effective to equip graduate with skills of “ability to think out of the box”? and how effective it is? Which method, “embedded subject model or “support programmes,” is more effective to equip graduate with skills of “ability to think out of the box”? and how effective it is? The same types of questions were repeated for all 13 employability skills.

Lastly, the effect of the employability skills development approaches on every other method and the influence of the method upon itself were also calculated. The

lecturers were asked to make pairwise comparison between elements in the cluster of employability skills development approaches. The example of the questions that asked are: which method gives more effect to the work-integrated learning, "embedded subject model or stand-alone subject model?"; which method has more effect on work-integrated learning, "embedded subject model or academic support programs?" The same types of questions were repeated for all remaining approaches. Geometric mean was used to aggregate the prioritization matrix of the respondents.

Step 3: supermatrix formation

The next step is to construct unweighted, weighted and limit supermatrix of the entire element within a network system. By using the Super Decision software 2.0.6, the unweighted (Table 3) and weighted supermatrix (Table 4) was obtained. The result shows that the employers placed "ability to speak fluently in English" has highest important weight of 0.204. The next most important skills are "ability to write effectively in English" and "ability to think critically" with important weight 0.142 and 0.136 respectively.

The weighted supermatrix is stochastic, irreducible and acyclic (Andronikidis *et al.*, 2009). Then, the limit supermatrix (which is stable) is calculated by raising weighted supermatrix to powers by multiplying it times itself. The process is continuing until the number in every column in the matrix is same and the multiplication process is stopped (Saaty, 2003). The limit matrix for identifying the most effective employability skills development approaches is shown in Table 5. The results show that the most effective employability skills development approach is "work integrated learning", with a percentage priority of 19.7 percent. The next more effective is 'stand-alone subject model" with 18.5 percent. The rest of the criteria in descending order of effective are the following: academic support programme, embedded subject model, non-academic support programme and campus life activities.

6.0 Conclusion and suggestion

This paper demonstrates an application of ANP to identify the most effective employability skills development approaches in order to equip graduates with skills important for employment. The use of these approaches in evaluating employers' perceptions of currently held skills was to identify the importance of the skills to employers, identify specific areas that need improvement and identify the most effective approaches in improving graduates' employability skills.

The results of this study demonstrate the importance of on-the-job training in developing employability skills. On-the-job training is a form of training whereby periods of study are alternated with periods of related work in an organization. Through on-the-job training programmes, students are able to practice the theories and knowledge that they have learned during their studies at school. Graduates are able to equip themselves with the latest skills needed by industries. In addition, graduates are able to develop their confidence levels, team work skills, communication skills, ability to work under pressure and able to gain on-the-job skills. Therefore, universities should provide students with real life work environments and hands-on learning through on-the-job training programmmes. HEIs need to work closely with industries to improve the marketability and employability of graduates since the employability of the graduates is one of the key performance indicators for higher education. The Ministry of Higher Education also stated in their objectives a desire to achieve a level of 75% employment of graduates within six months of graduation.

Table 3: Unweighted Supermatrix

	Objective	Employability skills development approaches						Employability skills													
		1	2	3	4	5	6	A	B	C	D	E	F	G	H	I	J	K	L	M	
Objective	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Employability skills development approaches	0.000	0.173	0.161	0.157	0.166	0.189	0.192	0.156	0.178	0.169	0.173	0.173	0.139	0.199	0.000	0.178	0.261	0.194	0.208	0.202	
	0.000	0.183	0.151	0.110	0.141	0.189	0.142	0.176	0.178	0.180	0.171	0.135	0.210	0.142	0.157	0.000	0.116	0.151	0.176	0.167	
	0.000	0.183	0.164	0.191	0.156	0.189	0.181	0.096	0.082	0.180	0.183	0.145	0.106	0.160	0.273	0.138	0.000	0.181	0.189	0.241	
	0.000	0.136	0.136	0.136	0.136	0.136	0.136	0.190	0.104	0.134	0.107	0.151	0.199	0.084	0.129	0.260	0.086	0.000	0.172	0.162	
	0.000	0.161	0.175	0.191	0.181	0.131	0.156	0.156	0.228	0.146	0.161	0.208	0.155	0.223	0.213	0.203	0.267	0.214	0.000	0.224	
	0.000	0.204	0.183	0.181	0.188	0.210	0.193	0.223	0.228	0.189	0.203	0.186	0.187	0.189	0.226	0.219	0.267	0.257	0.253	0.000	
Employability skills	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	0.142	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Table 4: Weighted Supermatrix

	Objective	Employability skills development approaches						Employability skills												
		1	2	3	4	5	6	A	B	C	D	E	F	G	H	I	J	K	L	M
Objective	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Employability skills development approaches	0.000	0.000	0.178	0.262	0.194	0.209	0.203	0.173	0.161	0.157	0.166	0.189	0.193	0.156	0.178	0.169	0.173	0.173	0.139	0.199
	0.000	0.157	0.000	0.117	0.152	0.176	0.168	0.184	0.151	0.110	0.142	0.189	0.142	0.176	0.178	0.180	0.171	0.135	0.210	0.143
	0.000	0.273	0.138	0.000	0.182	0.189	0.242	0.184	0.165	0.192	0.157	0.189	0.182	0.097	0.083	0.180	0.184	0.145	0.106	0.160
	0.000	0.129	0.260	0.086	0.000	0.172	0.163	0.094	0.164	0.167	0.166	0.091	0.134	0.190	0.105	0.134	0.108	0.151	0.199	0.085
	0.000	0.213	0.204	0.268	0.215	0.000	0.225	0.161	0.175	0.192	0.181	0.132	0.157	0.156	0.228	0.146	0.161	0.209	0.156	0.223
	0.000	0.227	0.220	0.268	0.257	0.254	0.000	0.204	0.184	0.181	0.188	0.210	0.193	0.224	0.228	0.189	0.204	0.187	0.188	0.189
Employability skills	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.136	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.110	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.142	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 5: Limit supermatrix

	Objective	Employability skills development approaches						Employability skills												
		1	2	3	4	5	6	A	B	C	D	E	F	G	H	I	J	K	L	M
Objective	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Employability skills development approaches	0.000	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174
	0.000	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134	0.134
	0.000	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.174	0.185
	0.000	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136	0.136
	0.000	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185	0.185
	0.000	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197	0.197
Employability skills	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

In order to ensure the effectiveness of on-the-job training programmes, HEIs must ensure that graduates are assigned to the right companies and the tasks assigned to them are in accordance with their specialization. Also, tasks that are assigned should be beneficial in enhancing their employability skills. If there is a mismatch between a graduate's area of specialization and the tasks assigned to them, graduates would be unable to practice or apply their knowledge and skills in the actual workplace. Thus, the objectives of the on-the-job training programme would not be fulfilled.

7.0 References

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